

Allagash Wilderness Waterway

Background Paper

Eagle Lake Tramway

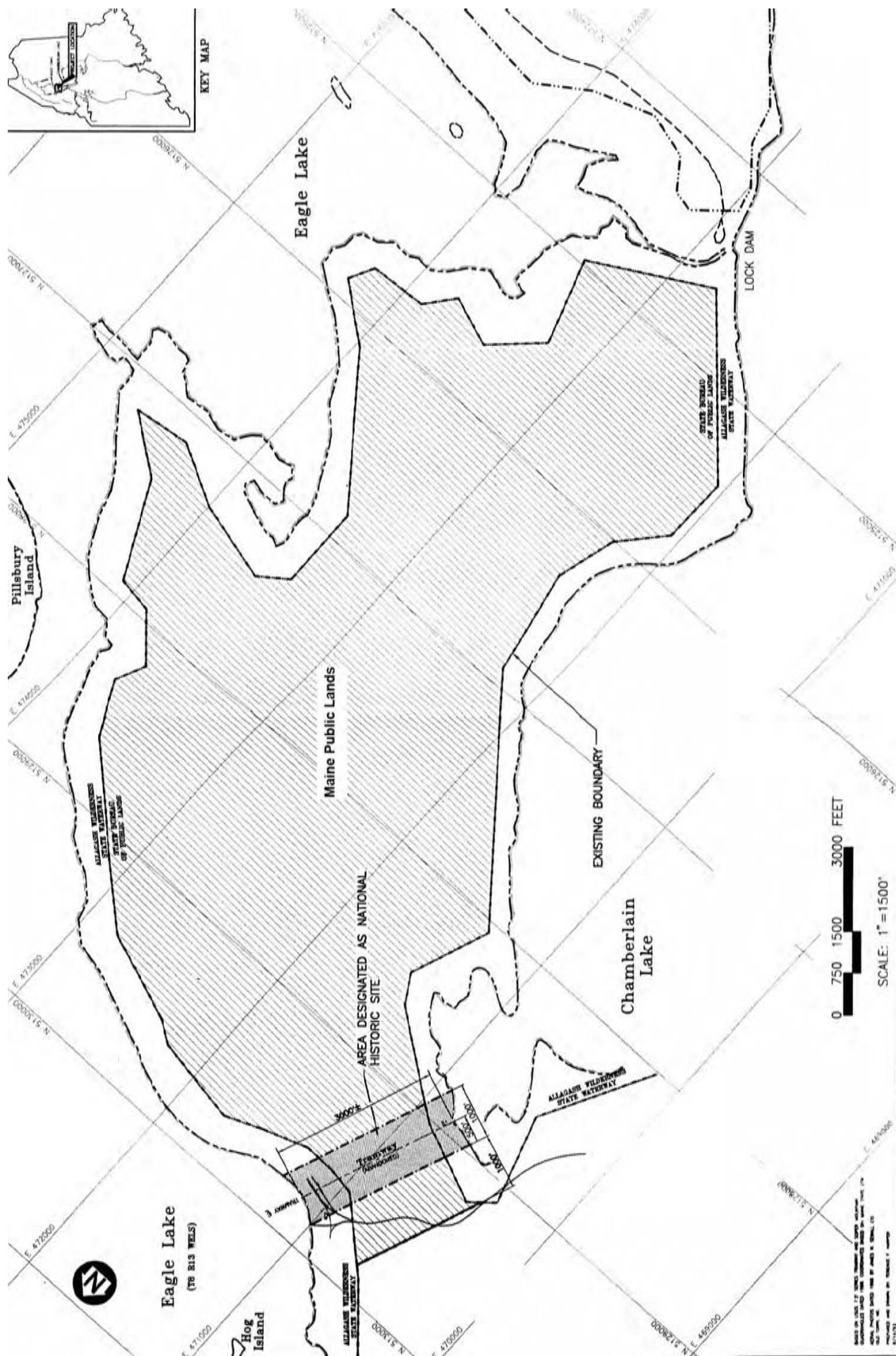
In the constant struggle to bring timber from Eagle and Churchill Lakes down to Chamberlain Lake and the via the Telos Cut and Webster Lake to the East Branch Penobscot, the first automated mechanical system arrived in the fall of 1902. With the help of steam power, Fred Dow, an engineer for lumber barons H.W. Marsh and F.W. Ayer, constructed a tramway to do the job. Essentially, the tramway was a small railroad pulled by a six thousand foot cable loop. Steel trucks attached to the cable carried logs across a three thousand foot passage between Eagle and Chamberlain Lakes at the rate of about three miles per hour. As the logs dropped off at the Chamberlain end, each empty truck looped underneath to a lower track and returned to Eagle Lake for another load. The tramway system worked remarkably well for more than six seasons, hauling one hundred million board feet before its use was discontinued.

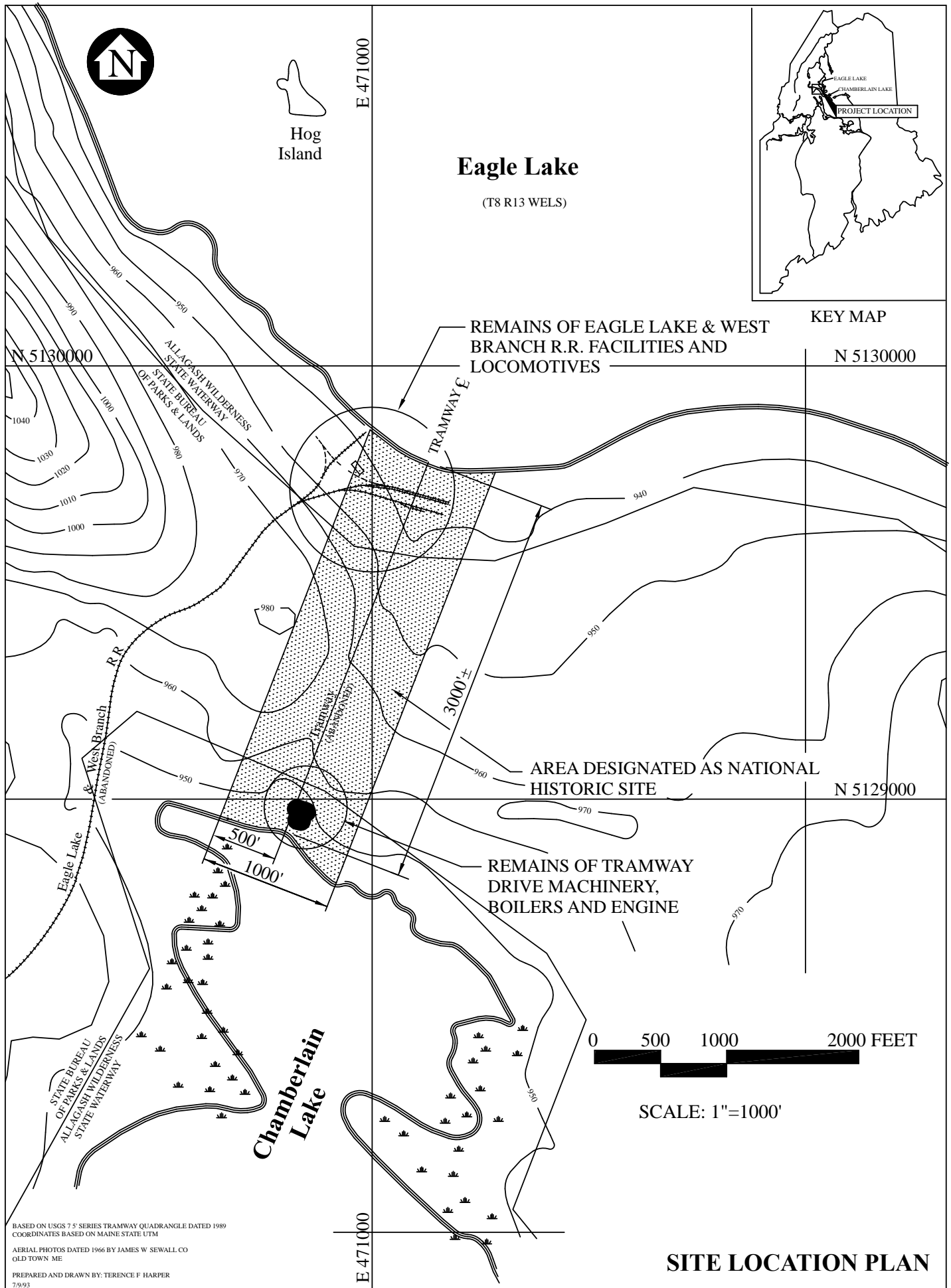
Most of the tramway parts were boated across Moosehead Lake during the summer and fall of 1901. That winter, H.N. Bartley hauled what remained at Greenville, particularly the 6,000 feet of continuous cable. It was an exhausting job using horse teams and skids, and by the time the teams reached Smith's halfway camp on the West Branch of the Penobscot, they cut the cable into two separate sections for easier hauling.

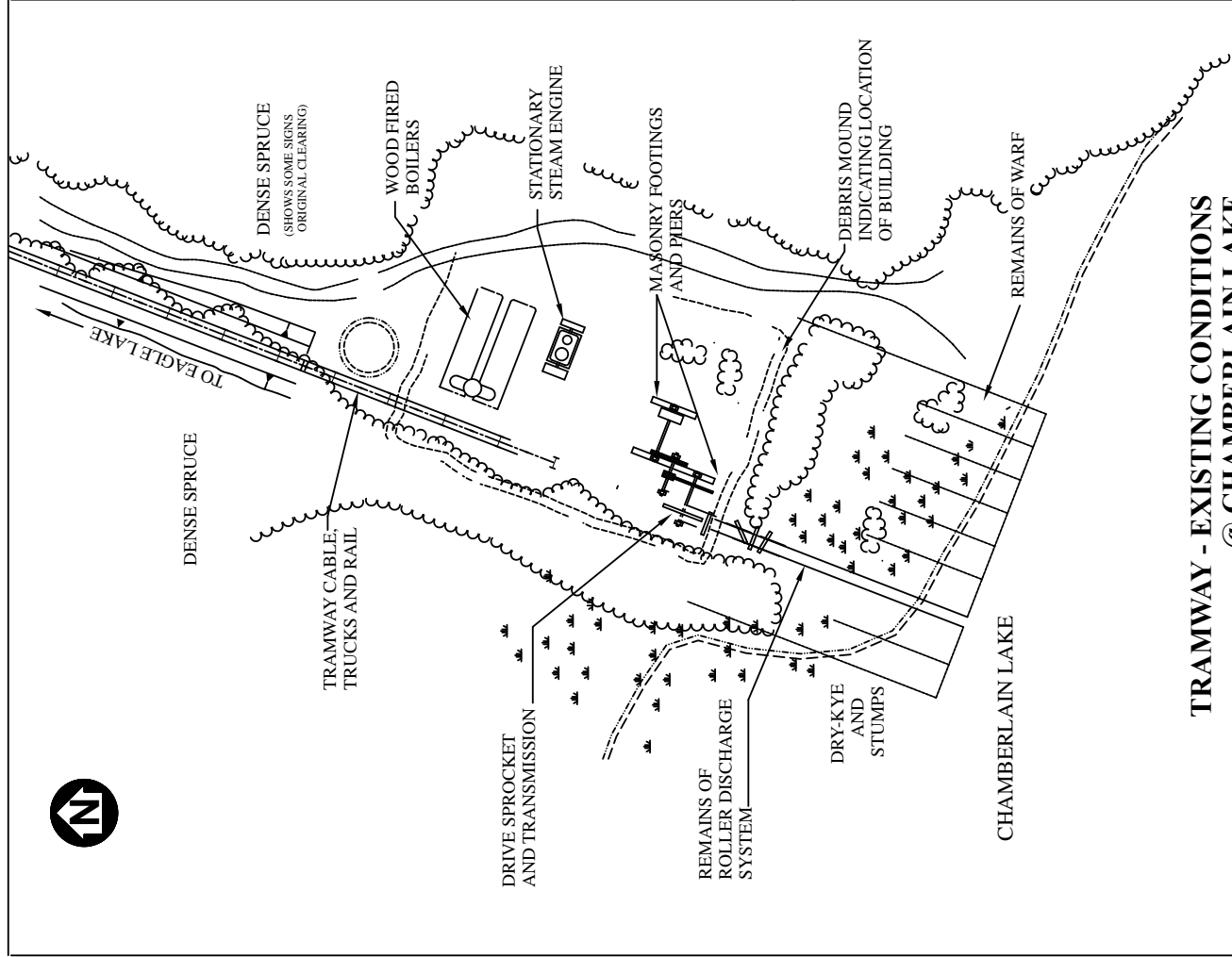
When construction was completed, the Tramway posed two problems. When the system was fired up and put in gear, workers discovered that none of the 7/8" bolts that held the 600 trucks and 600 clamps to the cable were tight enough and the whole system slipped. This occurred because the threads on each bolt did not reach far enough down the bolt shaft to tighten the nuts as much as was necessary. The only way to overcome this problem was to remove all 4,800 bolts and lengthen the threads with a hand dye. When this was finally accomplished and the system was again put into operation, workers watched nervously as the logs crawled onto the trucks but did not move at nearly the speed they had intended. Continuing to watch in dismay, they were relieved to find that as the first of the logs passed slowly over a rise in the ground along the route of the tramway their weight helped pull the cable along and increased the overall speed.

When finally under way successfully, the system could move a half million board feet per day, running from 4:00am to 8:00pm on the 22 inch gauge track. During the down hours, workers would walk the track, tightening bolts and performing regular maintenance. Sixty steel trucks attached to the cable at intervals of ten feet, had two tooth plates that held the log in place on top. In between each truck, also attached to the cable, was a clamp that fit into the sprocket wheel, helping it grip the cable at five-foot intervals (at both the clamp and truck). A Westinghouse Compound Engine, designed especially for electric light plants, powered the system. It had both twelve-inch and twenty-four inch cylinders with a fourteen-inch stroke. The engine made 255 revolutions per minute with 100 pounds of steam pressure.

Aerial photographs from 1966 show that only two structures remained at Tramway when the Allagash Wilderness Waterway was created. Today, only parts of the Tramway still exist, including the large sprocket wheel, boilers, and scattered pieces of trucks, clamps, and track. The Tramway area is now on the National Register of Historic Places. The Patten Lumbermen's Museum has in its collection a set of four trucks and clamps mounted on a wooden structure, as it would have been in operation.

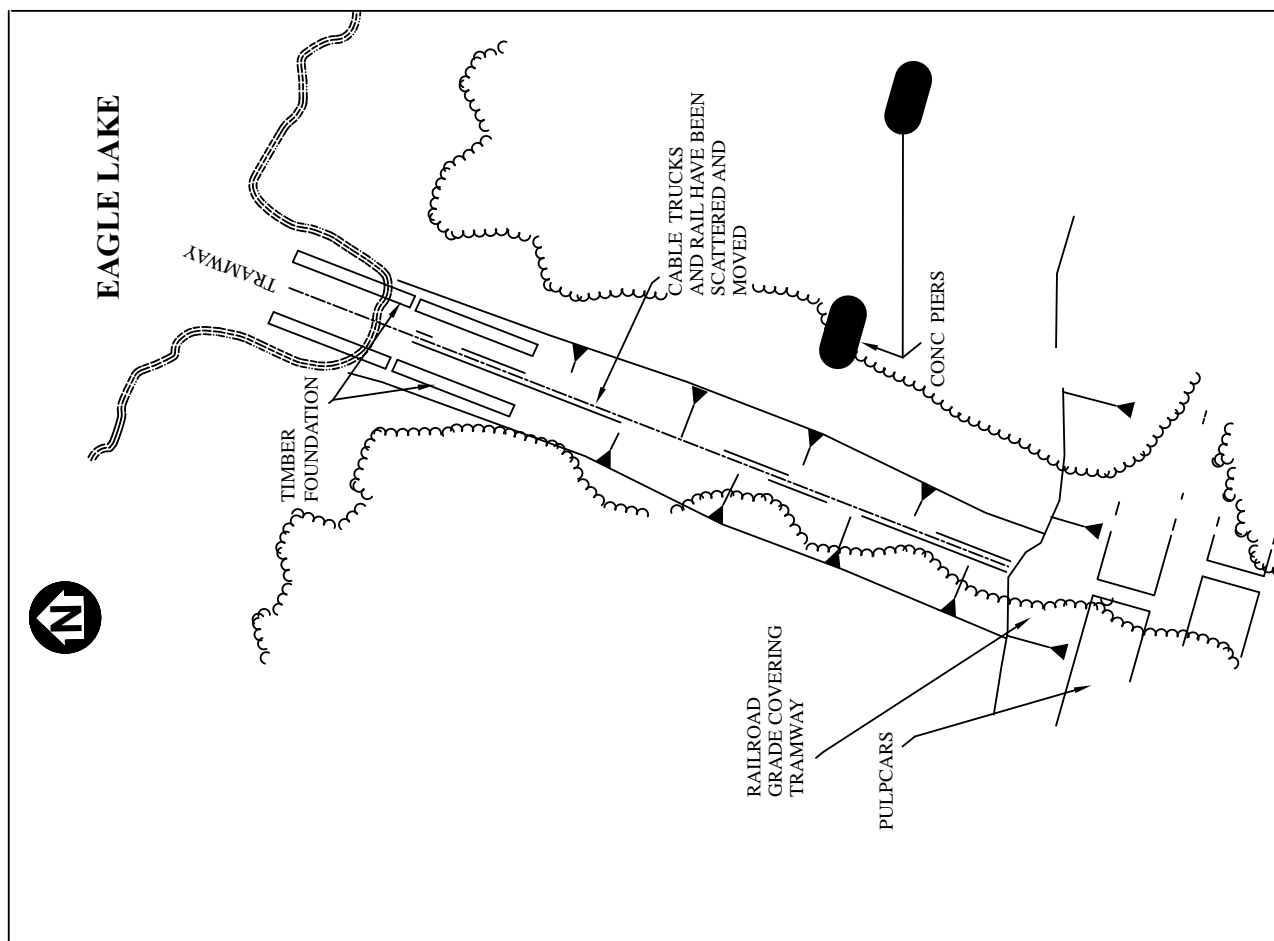
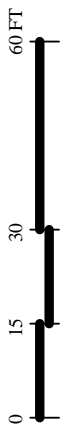






**TRAMWAY - EXISTING CONDITIONS
@ CHAMBERLAIN LAKE**

BASED ON AERIAL PHOTOS DATED 1966
BY JAMES W. SEWELL CO. OLD TOWN, ME.
AND FIELD OBSERVATIONS MADE ON 10/6/92
AND 5/18/94.
PREPARED AND DRAWN BY: THERENCE F. HARPER
7/12/94



**TRAMWAY - EXISTING SITE CONDITIONS
@ EAGLE LAKE**



EAGLE LAKE

1. HORSE BARN
2. BOARDING HOUSE
3. FOREST SERVICE CAMP
(BILL DUBIT)
4. AUGUSTE LESSARD (SUPT.)
5. FLORAIN POULIN (CLERK)
6. JOSEPH GIGUERE
7. FIRE EQUIPMENT/CANOES
8. WELL HOUSE
9. BLACKSMITH SHOP
10. TENT - AUREL FARLIN
(BLACKSMITH) AND HELPER
11. SAW MILL
12. EDWIN AND SAM ROBICHAUD'S
13. SAM'S CHICKEN COOP
14. "PUTT PUTT" HOUSE
15. ELEVATED WATER TANK
16. SQUARE WATER TANK
SLED
17. LOMBARD BOILER AND
OIL PUMP
18. OIL TANK SLEDS
19. 3 - 25,000 GAL. MAIN
OIL TANKS
20. CORD WOOD SAW
21. SMALL REPAIR SHOP
22. ENGINE HOUSE
23. CAR REPAIR TRACK
24. SPARE LOADING CONVEYOR
25. LOADING CONVEYORS
26. PIER
27. STEAM POWERED CAR
SHIFTER
28. ICE HOUSE
29. EMILE LABBIE (MASTER MECHANIC)
30. DUGUETTE & SON'S
(R.R. REPAIR CREW) AND
"PUTT PUTT" HOUSE
31. GAS TANK FOR PLYMOUTH
32. SAND DRYER AND BOX
33. ELEVATED OIL TANK

POTATO
FIELD

RTE. 9-14
 TRACTOR ROAD
 TO RUSSEL BROOK

TRAMWAY (1902 - 1907)
(ABANDONED)

0 100 200 400 FT.

NOTE:
BASED ON ALBUM PHOTOS DATED 1926
BY JAMES W. SEWELL CO. DATED FROM ME
AND SKETCHES AND VERBAL DESCRIPTIONS
BY LOUIS J. WICKSTADT 1922
DONATED BY REFERENCE F. HANSEN 1992
P/2020 6/2/93

Tramway Village, Eagle Lake End



Tramway Village, Post Office



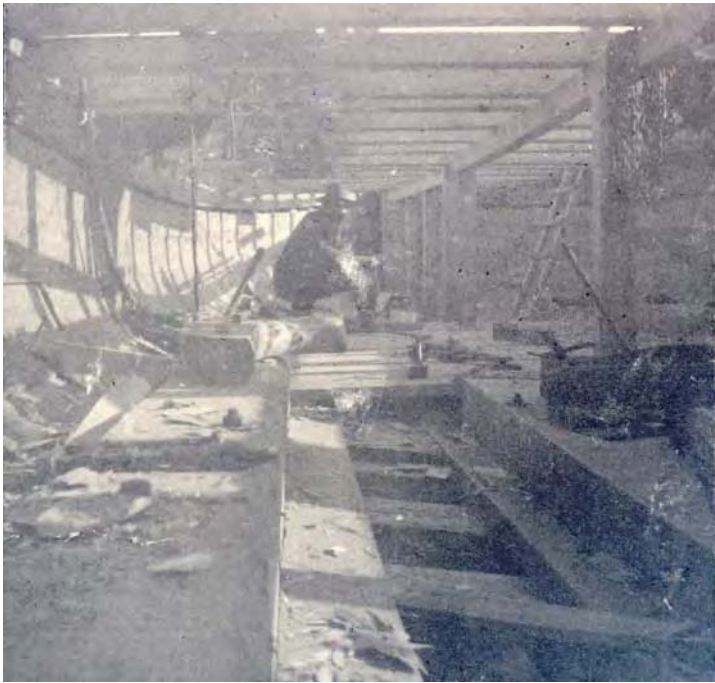
Tramway Village, Eagle Lake End



Tramway Village, Eagle Lake End



Tramway, Chamberlain Lake End - Construction of the *George A. Dugan*



Tramway, Chamberlain Lake End - Construction of the *George A. Dugan*



Tramway, Chamberlain Lake End - Construction of the *H.W. Marsh*



The *H.W. Marsh* Frozen Into the Ice at Chamberlain Farm



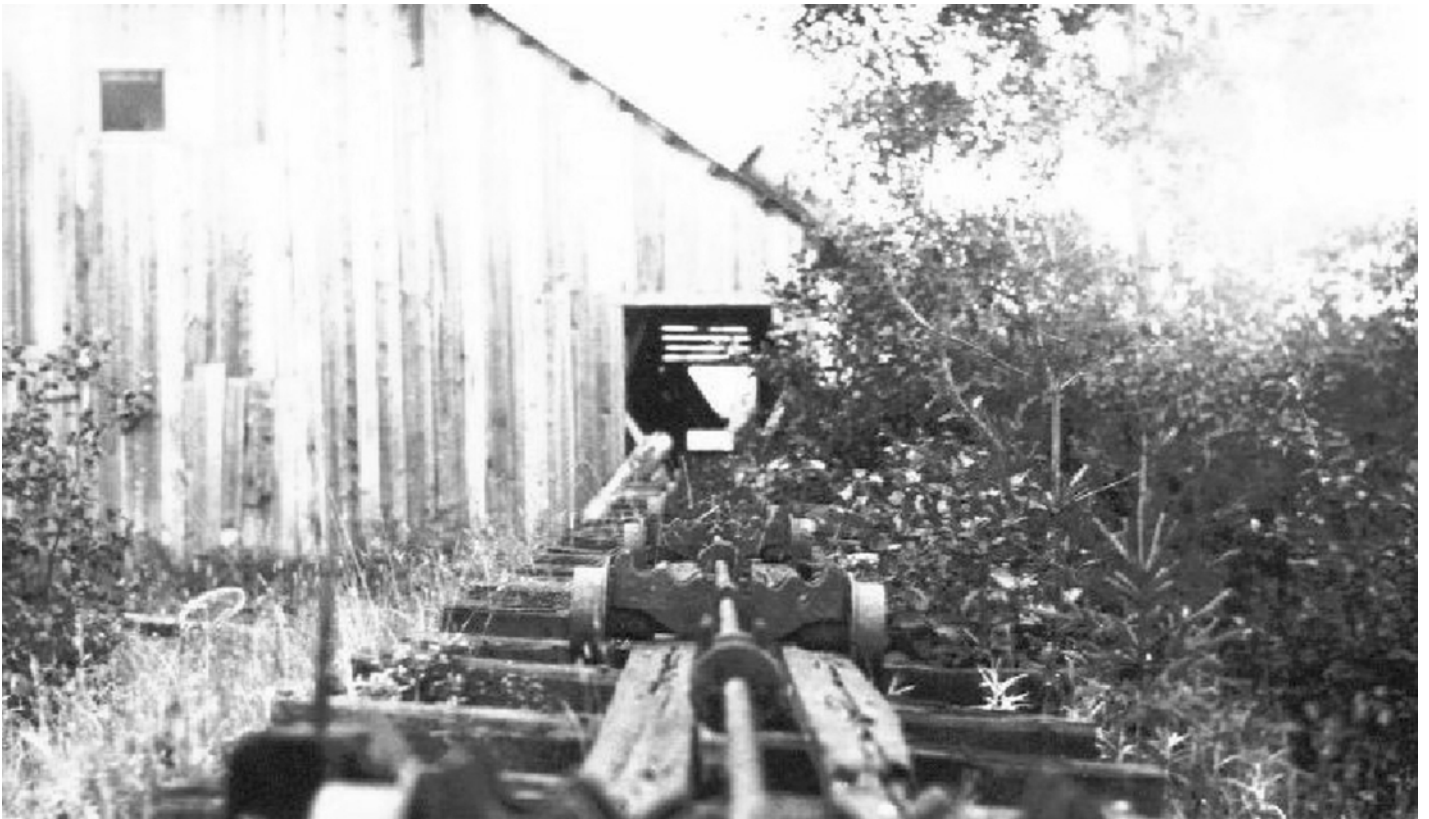
Remains of the *H.W. Marsh* at Chamberlain Farm, 2004



Tramway, Chamberlain Lake End - Power House



Tramway, Chamberlain Lake End - Power House and Trucks



Tramway Remains, Chamberlain Lake End, 2009



Tramway Remains, Chamberlain Lake End, 2009

